

Walker describes the head as unarmed, a statement contradicted by the spinous antenniferous tubercles.

Podops conspersus, Walk. Cat. Het. i. p. 71. n. 9 (1867), belongs to gen. *Crollius*, gen. nov.

Strachia frontalis, Walk. loc. cit. ii. p. 338. n. 80 (1867), belongs to gen. *Asopus*.

— *reciproca*, Walk. loc. cit. p. 340. n. 84, belongs to gen. *Asopus*.

— *megaspila*, Walk. loc. cit. p. 341. n. 85, = *Asopus reciprocus*, Walk.

— *humata*, Walk. loc. cit. p. 342. n. 86, belongs to gen. *Asopus*.

— *saturata*, Walk. loc. cit. n. 87, = *Asopus hamatus*, Walk.

Duadicus telifer, Walk. loc. cit. p. 376. n. 377, belongs to gen. *Audriscus*.

Stauralia crassicornis, Walk. loc. cit. p. 377. n. 2 (rightly placed).

— *terminalis*, Walk. loc. cit. p. 378. n. 3 (rightly placed).

Microdeuterus equalis, Walk. loc. cit. p. 390. n. 2 (rightly placed).

Brachystethus picobus, Walk. loc. cit. p. 456. n. 10 (rightly placed).

III.—*An Account of a Collection of Butterflies made by the Rev. K. St. Aubyn Rogers between Mombasa and the Forests of Taveta.* By ARTHUR G. BUTLER, Ph.D., F.L.S., F.Z.S., &c., Senior Assistant-Keeper, Zoological Department, British Museum (Nat. Hist.).

IN a letter sent from Mombasa, July 13th, 1900, Mr. Rogers writes:—"I have been collecting butterflies here for some time, and have been recommended by Mr. R. Crawshay to send you some specimens in case any of them may be of interest to you. I do not suppose you will find them of any great value, as the greater part of them have been taken so near the coast, the few from up-country being either from Taveta or on the road there. I regret there are so few, but I have already sent the greater part of my collections there to the Royal Institution of Cornwall.

"Most of the species I send you are common generally, but I append a few notes as to those which I have not taken so commonly." Then follow notes upon many of the species.

In spite of Mr. Rogers's modest opinion of this collection, I have found it of considerable interest; it consists of ninety-seven species, some poorly represented in the Museum collection, others quite new to us. One local form I have had to name, its differences from its southern representative being clearly quite constant.

The species from Taveta seem all to be referable to dry or intermediate phases, those from Mombasa chiefly, if not altogether, to the wet phase.

Nymphalidæ.

1. *Amauris ochlea*, Boisd.

♀, Mombasa, 30th December, 1899.

2. *Amauris dominicanus*, Trimen.

♂♂, Taveta, 11th November, 2nd and 5th December, 1899; Mombasa, 2nd May, 1900.

3. *Limnas chrysippus*, var. *dorippus*, Klug.

♂, Mombasa, 7th May, 1900.

4. *Samanta perspicua*, Trimen.

♂♂, Taveta, 4th and 22nd August, 28th November, 1899; locality illegible, 28th April, 1900.

The examples obtained at Taveta are all of the dry-season phase (but not yellow above as in *S. Simonsi*); the April example is of the wet phase.

5. *Monotrichtis sufiza*, Hewits.

♂, Mombasa, 12th July, 1900.

A curious variety with five ocelli on under surface of primaries, the first, third, and fourth small, the second only slightly larger, the fifth as large as usual.

6. *Neocenyra duplex*, Butler.

♂, Taveta, 11th December, 1899.

"Common between Voi and Taveta" (*St. A. Rogers*).

7. *Physcenura leda*, Gerst.

♂♀, Chaengombe, 23rd April, 1900.

"Common at Rabai, but not at Mombasa" (*St. A. R.*).

8. *Ypthima granulosa*, Butler.

♂, Mombasa, 22nd February, 1900.

9. *Charaxes brutus*, Cramer.

♀, Taveta, 4th September, 1899.

"Fairly common at Taveta, but difficult to get in good condition" (*St. A. R.*).

10. *Charaxes rosæ*, Butler.

♂, Taveta, 7th September, 1899.

The same note applies to this as to the preceding species; we should be glad to get more females of this species; they can at once be distinguished by the broad white belt across both front and hind wings and the distinct white spots on the former; the males of this and *C. manica* are much alike and liable to be confounded; *C. rosæ*, however, has distinctly broader and less falcate primaries.

11. *Charaxes neanthes*, Hewits.

♂, Taveta, 9th September, 1899.

"Occurs fairly frequently beyond Voi" (*St. A. R.*).

12. *Charaxes varanes*, Cramer.

♂, Mombasa, 20th June, 1900.

13. *Precis cloantha*, Cramer.

♀, Rabai, 6th June, 1900.

"This occurs widely, but I have never found it common" (*St. A. R.*).

14. *Precis elgiva*, Hewits.

Taveta, 15th July and 5th August, 1899.

15. *Precis cebrene*, Trimen.

♂, Taveta, 17th July; ♀, 7th October, 1899; ♂♂♀, Mombasa, 7th May, 11th June; ♀, Inn Town, 2nd June, 1900.

16. *Precis elelia*, Cramer.

♀, Taveta, 22nd August, 1899; ♂♀, 4th and 16th January, 1900.

17. *Precis boopis*, Trimen.

♂♂♀♀, Mombasa, 6th to 8th May, 1900.

18. *Protogoniomorpha nebulosa*, Trimen.

♂, Mombasa, 20th June, 1900.

19. *Pyrameis cardui*, Linn.

♂, Mombasa, 8th May, 1900.

20. *Panopea expansa*, Butler.

(? Frere) town, 30th June, 1900.

"I have only met with this twice, both in bad condition : mimics *Amauris ochlea*" (K. St. A. R.).

21. *Euralia deceptor*, Trimen.

♀, Mombasa, 23rd June, 1900.

"This is not common and is very like *Amauris ochlea*. I wish I could send you a better specimen" (K. St. A. R.).

22. *Euralia Wahlbergi*, Wallgr.

♀ ♀, Rabai, 6th and 8th June, 1900.

"This also seems rare ; it is a very close mimic of *A. dominicanus*" (K. St. A. R.).

23. *Hypolimnas misippus*, Linn.

♀, Mombasa, 20th April, 1900.

24. *Hamanumida dedalus*, Fabr.

♂, Chaengombe, 23rd April, 1900.

"Does not seem common near coast, but much more so up-country" (K. St. A. R.).

25. *Euphædra violacea*, Butler.

♂ ♂, Taveta, 11th November and 5th December, 1899.

26. *Euphædra neophron*, Hopff.

♀, Chaengombe, 23rd April ; ♂, Mombasa, 19th May ; ♂, Rabai, 8th June, 1900.

It is quite evident that this and *E. violacea* never occur together ; it seems likely that the blue of freshly-caught *E. neophron* undergoes a chemical change with age and becomes green ; the colour of *E. violacea*, however, appears to be permanent.

27. *Euryphene senegalensis*, Herr.-Sch.

♂ ♂ ♀ ♀, Rabai, 6th and 8th June, 1900.

"Quite common at Rabai" (K. St. A. R.).

28. *Neptis agatha*, Cramer.

♂ ♀, Rabai, 7th and 11th June ; ♂, Mombasa, 16th June, 1900.

29. *Eurytela dryope*, Fabr.

♀, Mombasa, 27th June, 1900.

30. *Ilypanis ilithyia*, Drury.

♂, Mombasa, 7th January; ♀, 30th June, 1900.

31. *Acraea Jacksoni*, E. M. Sharpe.

♂, Taveta, 11th November, 1899.

"This I have also taken commonly beyond Voi"
(K. St. A. R.).

32. *Acraea serena*, Fabr. (var. *perrupta*, Butler).

♀ ♀, "Frere Town?" 2nd June; Rabai, 6th June;
Mombasa, 7th July, 1900.

"This is very common, but seems to vary a great deal"
(K. St. A. R.).

Strangely enough Mr. Rogers has sent us six females of
this abundant species, all differing, but not one male.

33. *Acraea lycia*, Fabr.

♂ (typical form), Taveta, 7th October, 1899.

♂ (var. *daira*), Taveta, 9th September, 1899; ♀, Mombasa, 11th March, 1900.

34. *Acraea oerata*, Trimen.

♂, Taveta, 22nd August, 1899; ♂ ♀, Mombasa, 22nd
June, "Frere? Town," 12th May, 1900.

The male from Taveta is small, deep-coloured, and has the
spotted black body of the ordinary female, yet the spots on
the under surface do not differ; it is probably the dry phase
of the species. Mr. Rogers says of it—"I have not seen
this near the coast, but it is abundant the other side of Voi";
of the typical form he says—"Fairly common at Mombasa."

35. *Acraea natalica*, Boisdu.

♂ ♂, Mombasa, 8th May; Rabai, 9th June, 1900.

36. *Acraea anemosa*, Hewits.

♀, Mombasa, 1st February; ♂, 4th July; ♂, Rabai,
9th June, 1900.

37. *Acræa neobule*, Doubl.

♀, Mombasa, 15th February; ♂, "Frere?" Town, 17th February, 1900.

38. *Acræa insignis*, Dist.

♀, Mombasa, 27th April, 1900.

"This is the first specimen I have met with" (*K. St. A. R.*).

39. *Acræa satis*, Ward.

♂, Rabai, 8th June; ♀, Mombasa, 20th June, 1900.

Of the female Mr. Rogers says:—"I have not found this really common." The female is numbered 78, but the male 37, so that their specific identity seems not to have been recognized.

40. *Acræa mombasæ*, H. G. Smith.

♀, Rabai, 9th June, 1900.

"This is fairly common at Rabai, and occurs sometimes at Mombasa" (*K. St. A. R.*).

Unfortunately Mr. Rogers only sent us one example; it is a species not too well represented in the Museum series.

41. *Pardopsis punctatissima*, Boisd.

"Frere?" Town, 28th April, 1900.

Lycænidæ.

42. *Tingra amenaida*, var. *mombasæ*, H. G. Smith.

♂, Rabai, 8th June, 1900.

"This flies quite slowly; quite unlike a Blue" (*K. St. A. R.*).

43. *Lachnocnema bibulus*, Fabr.

♂, Taveta, 8th December, 1899; ♀, Rabai, 8th June, 1900.

Of the male Mr. Rogers writes:—"This curious Blue is quite common in a district of Taveta called Mbondeni, where it flies rapidly backward and forward, and frequently settles." Of the female he mentions having taken "a single specimen."

44. *Axiocerses harpa*, Fabr.

♂, Rabai, 11th June; ♀, Mombasa, 4th July, 1900.

Var. *tjoane*, Wallgr.

♂♂, Chaengombe, 23rd April; Rabai, 6th and 7th June; Mombasa, 23rd June.

Two examples of the variety are numbered (8), like the typical form, and two (180). *A. harpax* appears to be an extremely variable species, the fiery mahogany colouring of the primaries being somewhat reduced in var. *perion*, more so in var. *tjoane*, and wanting or nearly so in var. *punicea*. Similar variations occur in the males of *A. amanga*, examples from Abyssinia having the belt on the primaries narrowed and interrupted, whilst in British Central Africa it is usually cone-shaped, with a separate spot for the apex of the cone, and does not extend above the second median branch; nevertheless we have one normal male from Nyasaland.

Another example is also numbered (180), and is doubtless a form of var. *crasus* with the basal area of the primaries very black, so that the central reddish area represents a narrow and irregular tapering band, divided externally below the first median branch by a transversely oblique black bar; this specimen was caught at Rabai on the 8th June.

45. *Axiocerses amanga*, Westw.

♂♂, "Frere?" Town, 12th May; Rabai, 8th June, 1900.

Mr. Rogers numbers this (159), and remarks as follows:—"I am afraid there is some confusion amongst these; (8) is common, (159) is not common, but occurs both at Rabai and here; (180), if distinct?, I think only occurs at Rabai."

Considering the variability of the primaries in both *A. harpax* and *A. amanga*, it is not surprising that confusion should have arisen. I strongly suspect that *A. mendeche* from Mombasa is only an example of *A. amanga* in which the belt on the primaries is bounded by vein 4, which I should imagine is the vein indicated in the description; as a rule when this is the case the band is converted into a conical patch, but this appears not to be the case in the type of *A. mendeche*.

46. *Argiolaus lalos*, var., H. H. Druce.

♀, Chaengombe, 23rd April, 1900.

The white patches on the upper surface are rather smaller, the red more vivid and rather more restricted on the secondaries: below, the red markings are deeper, the anal patch extending further inwards; the black markings stronger and only extending to the second median branch. I think this will prove to be only a well-nourished example of *A. lalos*.

Mr. Rogers says that it "does not seem really common." We do not possess the male, and should be very glad to get more females.

47. *Stugeta Bowkeri*, Trimen, local form *mombasæ*.

♂ ♂, Mombasa, 7th and 10th February; ♀, 19th May, 1900.

These examples are larger and bluer than those from Natal; the black on the primaries is also expanded, reducing the size of the white markings. On the under surface the ground-colour is chalky white, with hardly any grey suffusion, the dark markings are of a more rufescent brown varied with orange. As a local form I think this insect requires a distinctive name.

48. *Hypolycaena philippus*, Fabr.

♂, Mombasa, 3rd January, 1900.

I am not sure that the African species are typical *Hypolycaene*.

49. *Hypolycaena pachalica*, Butler.

♂, Mombasa, 28th December, 1899.

50. *Virachola antalus*, Hopff.

♀ ♀, Taveta, 28th October, 1899; Rabai, 9th June, 1900.

51. *Virachola dariaves*, Hewits.

♂, Chaengombe, 23rd April, 1900.

Numbered (166) by Mr. Rogers, who, however, sends no note respecting it; it is rare in collections here, and we should be glad to get more specimens; we do not possess the female.

52. *Spindasis victorice*, Butler.

♂, Rabai, 11th June, 1900.

"This is not uncommon at Rabai; occurs here, but seems to be replaced further inland by (138)" (*K. St. A. R.*).

This is the first male example I have seen; on the upper surface it is intermediate between *S. natalensis* and *S. nyassæ*: on the under surface the primaries resemble those of *S. nyassæ*, but on the secondaries the central band is united at an angle with that running from the abdominal margin; the subapical transverse band is abruptly widened on first subcostal branch, and runs nearly parallel to the central band, and the outer

submarginal band is much abbreviated and confined to the apical area : these are all characters to be found in the female also. Although it has been questioned whether the three forms *S. natalensis*, *nyassæ*, and *victoriæ* can be distinguished as species, I find that, so far as specimens hitherto received show, the differences are constant to locality.

53. *Lycænesthes amarah*, Lefebv.

♀ ♀, Mombasa, 7th February and 3rd July; ♂, 4th July, 1900.

54. *Lycænesthes Lasti*, H. G. Smith.

♂, Chaengombe, 23rd April; ♀, 11th June, 1900.

This species (no. 163) is new to the Museum collection; the female bears the number (55).

55. *Lycænesthes Kersteni*, Gerst.

♂ ♂ ♀ ♀, Taveta, 14th October, 25th November, and 4th and 8th December, 1899.

The males are numbered (148) and the females (122).

56. *Cacyreus lingeus*, Cramer.

♀ ♀, Mombasa, 14th and 27th June, 1900.

57. *Castalius melæna*, Trimen.

♂ ♀, Taveta, 12th August and 17th October, 1899.

"I think I have only found this at Taveta, where it is common" (*K. St. A. R.*).

We should be glad of more specimens of this species.

58. *Tarucus telicanus*, Lang.

♂, Taveta, 18th August, 1899; ♀ ♀, Mombasa, 14th June and 20th July, 1900.

59. *Azanus jesous*, Guérin.

♂, Mombasa, 20th June, 1900.

60. *Catochrysops peculiaris*, Rogenh.

♀, Mombasa, 12th July, 1900.

A singularly white form of the female, belonging to the intermediate phase. Mr. Rogers observes that "the female is much larger than the male, which is also duller and bluish

grey." The male of this phase is quite unknown to me; it would seem to resemble typical *C. peculiaris* ♂ in size and *C. hypoleucus* ♂ in colour. It is an interesting fact (if I am correct in associating *C. hypoleucus* = *gigantea* with *C. peculiaris*) that the wet phase is tailed, but the intermediate and dry phases are without tails; yet in *Chrysophanus thersamon* we have a tailed form—*C. omphale*—and in a small *Everes* obtained by the late Capt. E. Y. Watson in the Chin Hills the presence or absence of tails appeared to be quite unimportant, so that it seems to me quite likely that the tailed form of the wet season might easily be modified in this respect and the species lose its tails with the reduction in the size of its wings.

61. *Catochrysops asopus*, Hopff.

♀, Mombasa, 23rd June, 1900.

This example bore no collector's number; it may, perhaps, have been confounded with the female of the next species.

62. *Catochrysops osiris*, Hopff.

♂ ♂ ♀ ♀, Mombasa, 30th December, 1899; 16th January and 17th February, 1900.

63. *Chilades trochilus*, Freyer.

♂ ♀, Mombasa, 8th March, 1900.

64. *Cupidopsis jobates*, Hopff.

♀, Taveta, 14th July; ♂ ♂ ♀ ♀, Mombasa, 28th and 30th December, 1899, and 3rd January, 1900.

65. *Nacaduba sichela*, Wallgr.

♀ ♀, Mombasa, 16th and 20th June, 1900.

"I do not think this is common here" (*K. St. A. R.*).

66. *Zizera knysna*, Trimen.

♂ ♂, Mombasa, 16th June and 4th July, 1900.

Numbered respectively (15) and (85), but they are only small and large examples.

Papilionidæ.

67. *Mylothris agathina*, Cramer.

♂ ♀, Mombasa, 12th May; ♀, 7th July, 1900.

68. *Terias brenda*, Doubl.

♂, Taveta, 4th December, 1899.

69. *Teracolus calais*, Cramer.

♀, Mombasa, 27th June, 1900.

70. *Teracolus Rothschildi*, E. M. Sharpe.

♂ ♂, Mombasa, 23rd June and 7th July, 1900.

"I have only found this quite close to the sea, generally quite on the shore, where it is often common" (*K. St. A. R.*).
It is new to the Museum collection.

71. *Teracolus imperator*, Butler.

♀, Mombasa, 30th January; ♂, 12th July, 1900.
The male is numbered (10) and the female (80).

72. *Teracolus evarne*, Klug.

♀, Mombasa, 20th June; ♂, 12th July, 1900.
The male is numbered (4) and the female (61).

73. *Teracolus isaura*, Lucas.

♂, Mombasa, 30th December, 1899.

This is a more southern habitat than I should have expected for *T. isaura*, which is a true northern form, found in Egypt, the White Nile, and Abyssinia.

74. *Teracolus gavisa*, Wallgr.

♀, Rabai, 9th June, 1900.

Mr. Rogers says that this was obtained at Rabai only.

75. *Teracolus callidia*, H. G. Smith.

Ochreous type.—♀, Taveta, 12th August; ♂, 29th November, 1899.

Crimson type.—♀, Mombasa, 28th December, 1900.

Said to be "common beyond Voi, not at Mombasa."

The specimens from Taveta are of the intermediate phase, that from Mombasa of the wet phase; the male is numbered (119), the females (2) and (2 var.).

76. *Teracolus leo*, Butler.

Intermediate phase.—♀, Taveta, 28th July, 1899.

Dry phase.—♂, 4th August; ♀, 28th October, 1899.

"Beyond Voi" (*K. St. A. R.*).

The more specimens of this species we receive the more convincingly is it proved that all the characters which distinguish it from the Arabian *T. halimede* are constant and absolutely reliable.

77. *Teracolus aurigineus*, Butler.

♂ ♂, Taveta, 19th August, 1899.

"Common beyond Voi, not at Taveta" (*K. St. A. R.*).

78. *Teracolus catachrysops*, Butler.

♂, Mombasa, 14th June, 1900.

The males of this well-marked species have come to hand tolerably frequently of late years; but the females seem to be rarer, more especially the white variety. Mr. Rogers numbers this insect (183), but makes no remark about it, from which fact I should judge that it cannot be rare at Mombasa. I should be very glad to get more examples, especially females.

79. *Catopsilia florella*, Fabr.

♀, Mombasa, 11th June; ♂, 7th July, 1900.

80. *Glutophrissa contracta*, Butler.

♀, Chaengombe, 23rd April; ♂, Mombasa, 16th June, 1900.

The male is numbered (97), the female (100).

81. *Herpænia eriphia*, Godart.

♀, Taveta, 26th July, 1900.

"This is fairly common here, but much more so further up country" (*K. St. A. R.*).

82. *Eronia dilatata*, Butler.

♂, Mombasa, 23rd February, 1900.

83. *Papilio corinneus*, Bertol.

♀, Mombasa, 19th May, 1900.

84. *Papilio similis*, Cramer.

♂, Chaengombe, 23rd April, 1900.

85. *Papilio philonoe*, Ward.

♂, Mombasa, 27th June, 1900.

We are badly in want of good examples of this species.

86. *Papilio constantinus*, Ward.

♂, Chaengombe, 23rd April, 1900.

"I have never found this common, though widely distributed" (*K. St. A. R.*).87. *Papilio nireus*, Linn.

♂, Rabai, 7th June, 1900.

88. *Papilio merope*, Cramer.

♂, Rabai, 8th June, 1900.

"Difficult to get in good condition" (*K. St. A. R.*).

Hesperiidæ.

89. *Tagiades fesus*, Fabr.

♂, Mombasa, 16th June, 1900.

90. *Pyrgus dromus*, Plötz.

Rabai, 7th June; Mombasa, 7th July.

91. *Parosmodes icteria*, Mab.

Rabai, 6th June, 1900.

"Only seen at Rabai" (*K. St. A. R.*).92. *Acleros placidus*, Plötz.

Rabai, 8th June, 1900.

This is very nearly related to *A. Mackenii*; indeed it would not surprise me to find that with a good series it would be impossible to separate them.93. *Andronymus philander*, Hopff.

Rabai, 9th June, 1900.

94. *Kedestes Wallengrenii*, Trimen.

Rabai, 6th and 9th June, 1900.

"Only seen at Rabai" (*K. St. A. R.*).95. *Baoris lugens*, Hopff.

Mombasa, 20th June and 4th July, 1900.

96. *Parnara mathias*, Fabr.

♂ ♀, "Frere?" Town, 2nd and 30th June, 1900.

The male is numbered (182), the female (170).

97. *Ceratrachia? stellata*, Mab.

♂, Rabai, 7th June, 1900.

It has been suggested by Dr. Holland that my *C. punctulata* may be a variety of this species; but I think, if he could compare the two, he would alter this, I will not say *opinion*—for he does not speak with decision,—but perhaps *view* would be the word to use. *C. punctulata* is a more robust species, without chequered but with spotted fringes, and with no ochreous colouring below; the spots on the under surface are chalky white without dark borders and the veins are whitish.

IV.—A Contribution to the History of Plagyodus (Steller).

By Dr. A. GÜNTHER, F.R.S.

IN the March number of this Journal for 1867 I showed that the remarkable oceanic fish which Lowe described in 1833 under the name of *Alepisaurus* had already been known to Steller (ca. 1745), who named it *Plagyodus*. Steller gave a perfectly recognizable description of it, which was published by Pallas in vol. iii. of the 'Zoographia Rosso-Asiatica' (1811)*.

However, even Steller was not the first observer who has obtained and taken notice of this interesting type. William Funnell, who served as mate on Captain Dampier's Expedition into the South Seas in the years 1703-4, gives a description and figure of it in his account of that enterprise ('A Voyage round the World': London, 1707. 8°). He says on page 6:—"On October the 22d (being in the Latitude of 6 d. 36 m. N. and Longitude from London W. about 19 d. 57 m.) we caught four fish; a Shark, a Dolphin, a Jelly-fish and an Old-wife." He then proceeds to describe these fishes, the passage referring to the Jelly-fish (p. 8) running as follows:—"The *Jelly-fish* (see fig. III.) was about fourteen inches long, and about 2 inches deep; with a

* Messrs. Jordan and Evermann (Fish. N. & M. Amer. i. p. 594) call it "a brief description"; it occupies a page of this journal, and, what is more, it is very much to the point. I have no desire to discuss the question whether *Plagyodus*, which in due form was introduced into zoological literature by Pallas, should supersede *Alepisaurus*, or whether it should be discarded, because (as is pretended) names formed by Steller are to be estimated as "monomial designations" rather than generic terms!